

*'clean' copy of amended specification*

## **METHOD FOR GENERATING COLOR MONITOR PROFILE FOR DIFFERENT OPERATING SYSTEMS**

### **FIELD OF THE INVENTION**

5       The present invention relates to image processing, and particular to a method for generating a color monitor profile for different operating systems.

### **BACKGROUND OF THE INVENTION**

10       Currently, the conventional printing technique has been replaced by current electronic printing technology. However, in computer printing, it is necessary to match the colors output from a printer with colors displayed on the computer screen. Colors of the computer screen are generated by using the mixing RGB color elements, but the colors of  
15 printer are generated by CMYK. Thereby, according to the international ICC color committee, the bridge of the RGB and CMYK is based on the XYZ values (or laboratory values (CIELAB values)). Thereby, the screen color monitor profile and printer color monitor profile are built for describing the color presentation of the screen and printer, respectively.  
20 Thus, the color relations between the screen and printer can be built so that the outputs of the screen and printer can be the same or similar

For example, if it is desired to generate the screen profile file, a color management software (CMS) is used to generate a specific image on a screen to be measured. Then a colorimeter is used to capture the values  
25 of the hues, gray levels, and RGB. Then these values are converted to

the XYZ value used in the screen profile file. The way for generate a printer profile file is that the color management software causes the printer to output 928 color blocks from the PTRI of IT8. 7/3. Then above values are achieved by measuring the 928 color blocks.

5           However, the screen profile file and printer profile file are achieved from different operation system. For example, in PC window, the color management software must be suited the PC window. The same is for MAC computer or other kinds of computer. Thereby, the manufacturers must develop different color management software used for printer so that  
10 the printer can be connected to various computer operating systems for solving this problem.

#### **SUMMARY OF THE INVENTION**

Accordingly, the primary object of the present invention is to provide  
15 a method for generating a color monitor profile for different operating systems comprising the steps of: forming a multimedia film for a screen to be measured; displaying the multimedia on the screen; measuring hues, gray levels, and RGB values of the screen by using a colorimeter near the screen; transferring outputs from colorimeter to a computer having a  
20 color management software so as to build a color monitor profile for the computer. Thereby, it is unnecessary to develop another color management software to fit for the operating system used in the screen.

The various objects and advantages of the present invention will be more readily understood from the following detailed description when read  
25 in conjunction with the appended drawing.

colors. Next, the screen outputs desired hues, gray levels, and RGB values to the personal computer 10 performing the color management software. Thereby, the color management software will build the screen profile file of the MAC computer 30.

5 The operation of the present invention in a PC platform will be described herein. A true color monitor profile software will be performed. The colorimeter 20 will measure the profiles of hues, gray levels, and RGB values. A mode for building the screen profile is selected for generating a color profile of the screen. Then, the hues, gray  
10 levels, and RGB values are used to build a multi-media software to be stored in the MAC platform. However, by the present invention, the color profile can be used to a computer screen using other operation system instead of only being suitable for the original operation system.

The present invention provides a method for generating a color  
15 monitor profile for different operating system. Firstly, a multimedia film 40 is built for the screen 30 to be measured; displaying the multimedia film 40 on the screen; measuring hues, gray levels, and RGB values of the screen 30 by using a colorimeter 20 near the screen 30; transferring outputs from colorimeter 20 to the computer 10 having a color  
20 management software so as to build a color monitor profile for the computer 10. Thereby, it is unnecessary to develop another color management software to fit for the operating system used in the screen.

The present invention is thus described, it will be obvious that the same may be varied in many ways. Such variations are not to be regarded  
25 as a departure from the spirit and scope of the present invention, and all